U.S. Patent and Tradem

ce: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Acror 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION **TRANSMITTAL**

Attorney Docket No.		No.	03248.00045	
First In	ventor	ony C. Mulligan, et al.	N	
Multi-Functional (al Composite Structures	75.07 05.07
Express Mail Label No.			EL 820756229 US	

(Only for new nonprovisional applications under 37 C.F.R. 1.53(b)) Assistant Commissioner for Pate APPLICATION ELEMENTS ADDRESS TO: **Box Patent Application** See MPEP chapter 600 concerning utility patent application contents. Washington, DC 20231 CD-ROM or CD-R in duplicate, large table or 1. 🔯 Fee Transmittal Form (e.g., PTO/SB/17) Computer Program (Appendix) (Submit an original and a duplicate for fee processing) 2. Applicant claims small entity status. 8. Nucleotide and/or Amino Acid Sequence Submission See 37 CFR 1.27. (if applicable, all necessary) a. Computer Readable Form (CRF) 3. 🔯 [Total Pages Specification (preferred arrangement set forth below) Specification Sequence Listing on: - Descriptive title of the Invention i. CD-ROM or CD-R (2 copies); or Cross Reference to Related Applications ii. 🗌 paper - Statement Regarding Fed sponsored R & D c. Statements verifying identity of above copies - Reference to sequence listing, a table, or a computer program listing appendix

- Background of the Invention **ACCOMPANYING APPLICATIONS PARTS** 9. - Brief Summary of the Invention Assignment Papers (cover sheet & document(s)) - Brief Description of the Drawings (if filed) 10. 🔲 37 C.F.R.§3.73(b) Statement Power of - Detailed Description (when there is an assignee) Attorney - Claim(s) - Abstract of the Disclosure 11. 🔲 English Translation Document (if applicable) 4. 🔯 12. 🔲 Information Disclosure Copies of IDS Drawing(s) (35 U.S.C.113) [Total Sheets 3 Statement (IDS)/PTO-1449 Citations [Total Pages | 3 5. Oath or Declaration 13. 🔲 **Preliminary Amendment** a. Newly executed (original or copy) 14. 🛛 Return Receipt Postcard (MPEP 503) b. Copy from a prior application (37 CFR 1.63 (d)) (Should be specifically itemized) (for a continuation/divisional with Box 18 completed) 15. 🔲 Certified Copy of Priority Document(s) i. DELETION OF INVENTOR(S) (if foreign priority is claimed) Signed statement attached deleting inventor(s) 16. 🔲 Nonpublication Request under 35 U.S.C. 122 named in the prior application, see 37 CFR (b)(2)(B)(i). Applicant must attach form PTO/SB/35 1.63(d)(2) and 1.33(b). or its equivalent. 6. Application Data Sheet. See 37 CFR 1.76 17. 🛛 Other: Certificate of Mailing Via US Express Mail 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: □ Divisional □ Continuation ☐ Continuation-in-part (CIP) of prior application No: _ Group / Art Unit: Prior application information: Examiner For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 17. CORRESPONDENCE ADDRESS or \square Correspondence address below ☐ Customer Number or Bar Code Label (Insert Customer No. or Attach bar code label here) Name Banner & Witcoff, Ltd. 10 South Wacker Drive Address **Suite 3000** City Chicago State Illinois Zip Code 60606 Country U.S.A. Telephone 312-715-1000 312-715-1234

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

Registration No. (Attorney/Agent)

42,109

December 4, 2001

Date

ф M ļ-ā N FUHU

Name (Print/Type)

Signature

Rebecca P. Rokos

abecea Ph

FEE TRANSMITTAL for FY 2002

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$)

complete if Known						
Application Number	Not Yet Assigned					
Filing Date	Concurrently Herewith					
First Named Inventor	Anthony C. Mulligan, et al.					
Examiner Name	Not Yet Assigned					
Group / Art Unit	Not Yet Assigned					
Attorney Docket No.	03248.00045					

Claims 6 -3 ** = 3 X 42 = 126 Recording each patent assignment	TOTAL AMOUNT OF PAYMENT (\$) 672						Attorne	Attorney Docket No. 03248.00045								
Deposit Account Number Di-0850	METHOD OF PAYMENT (check one)									•	FEE CALCULATION (continued)					
Deposit Account Number Deposit Account De	The Commissioner is hereby authorized to charge						3. ADD	Large	FEES	Small						
Deposit			01-0850												Fee Description	
Depocit Account Banner & Witcoff, Ltd. 139 130 130 139 130 139 130 130 139 130 139 130 130 139 130 130 139 130 130 139 130 130 139 130 139 130 130 139 130 130 139 130 1			0.5000						- 1		105	130	205	65	Surcharge - late filing fee or oath	
Account Banner & Witcoff, Ltd. 139 130 130 139 130 139 130 130 139 130								127	50	227	25					
Charge Any Additional Fee Required Under 37 CFR 1.13 on 1.17 Applicant claims small entity status. See 37 CFR 1.27 or 7 CFR 1.27 Check								139	130	139	130	Non-English specification				
Under 37 CFR 1.16 and 1.17	ı —		L								147	2,520	147	2,520	For filing a request for reexamination	
See 37 CFR 1.27	Un	der 37 (CFR 1.16 and	1.1	7						112	920*	112	920*		
Check	Se	e 37 CF	R 1.27	entity	y status.						113	1,840*	113	1,840*		
Subtotal Claims C	2.	aymen	it Enclosed:								115	110	215	55	Extension for reply within first month	
Section Sect	□ Ch	eck	☐ Credit c	ard				Other	r		116	400	216	200		
1. BASIC FILING FEE Large Entity Small Entity Entity Small Entity Small Entity Entity Small Entity Entity Small Entity Ent			ee			-					117	920	217	460	Extension for reply within third month	
Fee Gode (\$) Code Code (1. BA	SIC FIL			ALCULATIC)N	-				118	1,440	218	720		
Code (\$) Code (\$) Fee Pald 120 320 220 150 Filing a brief in support of an appeal 121 280 221 140 Request for oral hearing Pertition to revive – unavoidable 121 280 221 140 Request for oral hearing Pertition to revive – unavoidable 141 160 214 80 Provisional filling fee 140 110 240 55 Petition to revive – unavoidable 141 1,280 241 640 Petition to revive – unavoidable 141 1,280 242 640 Utility issue fee (or reissue) 143 460 243 230 Design issue fee 144 620 244 310 Plant issue fee (or reissue) 144 620 244 310 Plant issue fee 122 130 122 130 Plant issue fee 122 130 123 50 Processing fee under 37 CFR 1.17 (q) 126 180 Submission of Information Disclosure 126 180 Submission of Information Disclosure 126 180 Submission of Information Disclosure 140 240 245 370 Filing a submission after final rejection (37 CFR § 1.129(b)) 149 740 249 370 For each additional invention to be examined (37 CFR § 1.129(b)) 149 740 279 370 Request for capacitic examination (RCE) 149 740 279 370 Request for capacitic examination (RCE) 149 740 279 370 Request for expedited examination of a design application 140	Large E	ntity S	Small Enti	ty							128	1,960	228	980	Extension for reply within fifth month	
101 740 201 370 Utility filing fee 370 121 280 221 140 Request for oral hearing 121 280 221 140 Request for oral hearing 128 1,510 138 1,510 1					Fee Descri	ptic	n	_			119	320	219	160	Notice of Appeal	
106 330 206 165 Design filing fee 107 510 207 255 Plant filing fee 108 740 208 370 Reissue filing fee 114 160 214 80 Provisional filling fee 140 110 240 55 Petition to revive – unavoidable 141 1,280 241 640 Petition to revive – unavoidable 142 1,280 241 640 Petition to revive – unavoidable 142 1,280 241 640 Petition to revive – unavoidable 142 1,280 241 640 Petition to revive – unavoidable 142 1,280 241 640 Utility issue fee (or reissue) 143 460 243 230 Design issue fee 144 620 244 310 Plant issue fee 144 44 44 44 44 44 44		•						_		٦.	120	320	220	160	Filing a brief in support of an appeal	
107 510 207 255 Plant filing fee							_	13/	0	-	121	280	221	140	Request for oral hearing	
SUBTOTAL (1) (\$) 370 2. EXTRA CLAIM FEES Extra Fee from Fee below Paid 122 130 Petition to revive — unintentional 142 1,280 242 640 Utility issue fee (or reissue) 144 620 244 310 Plant issue fee 122 130 Plant issue fee 1						-	В			}	138	1,510	138	1,510		
SUBTOTAL (1) (\$) 370	108 7	40 2	208 370		Reissue filir	ng fo	ее]	140	110	240	55	Petition to revive – unavoidable	
2. EXTRA CLAIM FEES	114 1	60 2	214 . 80		Provisional	fillir	ng fee	L		J	141	1,280	241	640	Petition to revive – unintentional	
2. EXTRA CLAIM FEES Extra Fee from Fee Paid 122 130 122 130 123 50 Percessing fee under 37 CFR 1.17 (q) 126 180 126 180 126 180 Submission of Information Disclosure Strut 140			CUDTO		(4)			(#\	270	٦	142	1,280	242	640	Utility issue fee (or reissue)	
Extra Fee from Fee below Paid 122 130 122 130 Petitions to the Commissioner 123 130 120 130 120 130 Petitions to the Commissioner 123 130 120 130 Petitions to the Commissioner 123 130 120 130			30610	/ I A I	- (1)			(4)	3/0	J	143	460	243	230	Design issue fee	
Total Claims 24	2. EXTRA	CLAIN	FEES								144	620	244	310	Plant issue fee	
Total Claims Independent											122	130	122	130	Petitions to the Commissioner	
Independent Claims Claims	Total Claims	24	20 **	- [1 = 1		7	123	50	123	50	- '"	
Multiple Dependent Large Entity Small Entity Fee Fee Fee Fee Fee (\$) Code (\$) Code (\$) Fee Description 102 84 202 42 Independent claims in excess of 3 104 280 204 140 Multiple dependent claims in excess of 3 109 84 209 42 "Reissue independent claims over original patent SUBTOTAL (2) (\$) 302 Recording each patent assignment per property (limes number of properties) 140 581 40 581 40 per property (limes number of properties) 146 740 246 370 Filing a submission after final rejection (37 CFR § 1.129(a)) 149 740 249 370 For each additional invention to be examined (37 CFR § 1.129(b)) 179 740 279 370 Request for Continued Examination (RCE) 169 900 169 900 Request for expedited examination of a design application 18 210 9 "Reissue claims in excess of 20 and over original patent" SUBTOTAL (2) (\$) 302 *Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0	Independent		= =	ì	=			ίi		ĺ	126	180	126	180		
Large Entity Small Entity En	Multiple			Į]] <u>=</u> []	581	40	581	40	per property (times number of	
Fee Code (\$) Code (\$) Fee Description	Large	•			y			. '		-	146	740	246	370		
103 18 203 9 Claims in excess of 20 102 84 202 42 Independent claims in excess of 3 104 280 204 140 Multiple dependent claim, if not paid 109 84 209 42 "Reissue independent claims over original patent 110 18 210 9 "Reissue claims in excess of 20 and over original patent SUBTOTAL (2) (\$) 302 179 740 279 370 Request for continued Examination (RCE) 169 900 169 900 Request for expedited examination of a design application Other fee (specify) *Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0	Code	(\$)	Code (\$)							149	740	249	370	For each additional invention to be	
104 280 204 140 Multiple dependent claim, if not paid 109 84 209 42 "Reissue independent claims over original patent 110 18 210 9 "Reissue claims in excess of 20 and over original patent SUBTOTAL (2) (\$) 302 *Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0											1,70	740	270	270	-	
109 84 209 42 ** Reissue independent claims over original patent 110 18 210 9 ** Reissue claims in excess of 20 and over original patent SUBTOTAL (2) (\$) 302 *Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0									· · · · ·							
110 18 210 9 "Reissue claims in excess of 20 and over original patent SUBTOTAL (2) (\$) 302 *Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0					•				•		169	900	169	900		
Other fee (specify) SUBTOTAL (2) (\$) 302 *Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0	109	84	209 4	12	original p	oate	int								o, a daalgi i application	
*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0								Other fee (specify)								
(3)		SUBTOTAL (2) (\$) 302							*Reduced by Basic Filing Fee Paid SUBTOTAL (3)							
	**or number	**or number previously paid, if greater, For Reissues, see above											(3)0			

SUBMITTED BY Complete (if applicable)									
Name (Print/Type)	Rebecca P. Rokos	Registration No. Attorney/Agent)	42,109	Telephone	312-715-1000				
Signature	Pelvecca	P. Paloe		Date	December 4, 2001				

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Certificate of Mailing by Express Mail under 37 CFR 1.10

Express Mail No.: EL 820756229 US

MODIFIED PTO/SB/92 (08-00)

Date Deposited: December 4, 2001

I hereby certify that the attached correspondence, identified below, is being deposited with the United States Postal Service as "Express Mail Post Office to Addressee" under 37 CFR § 1.10 on the date indicated above in an envelope addressed to:

U.S. Patent and Trademark Office Box Patent Application P. O. Box 2327 Washington, D.C. 22202

By: Volume P. Rota ... (person actually depositing)

Application Number:

Not Yet Assigned

Filing Date:

Concurrently Herewith

First Named Inventor:

Anthony C. Mulligan, et al.

Group Art Unit:

Not Yet Assigned

Examiner Name:

Not Yet Assigned

Attorney Docket No.

03248.00045

- 1. Utility Patent Application Transmittal;
- 2. Fee Transmittal for FY 2002;
- 3. Application Data Sheet;
- 4. Patent Application (32 sheets including Abstract);
- 5. Three pages drawings (containing Figs. 1 through 5);
- 6. Joint Declaration for Patent Application; and
- 7. Return Post Card